### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 74.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019840 Address: 333 Burma Road **Date Inspected:** 18-Jan-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 815 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Goodwin Steel, UK **Location:** Trentham, UK

**CWI Name:** N/A **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No N/A N/A Yes N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Cable Band

### **Summary of Items Observed:**

The following report is based on METS observations at Goodwin International, Trentham, UK on this date.

The QA Inspector observed welding of Casting GG29428-11, Drawing Number 5540-B7-1-M. The welding was being performed by Mr. Dan McDonagh. Mr. McDonagh was using WPS 271 Revision 1. The welding was being preformed at 16.5 volts and 174 amps. The heat input and the travel speed were being monitored. The filler metal was AWS A5.28 ER70S-A1 batch 14585. The shielding gas was Argon with a flow rate of 12 L/min These are within the allowable range of the WPS. Welding was being performed in the 1G position.

An attempt was made to complete post weld heat treatment of Casting GG29441-2, Drawing Number 5540-B10-2-F. This casting failed to reach the required temperature of 630 degrees +/-20 degrees. Controller B2624 was being used. The thermocouple wire used was Type K .711 mm Batch No. T1US29014.

The QA Inspector did periodically observe the in process machining of an assembled B11 Type 2 cable band, castings GG29442-2, 5540-B11-2-M and GG29443-1, 5540-B11-2-F for West Panel Point 44. The holes for attachment of the shroud were being drilled and tapped. Goodwin International personnel were performing the machining.

The QA Inspector met with Goodwin International representative, Mr. C. Ryder. The QA inspector received a shipper for the cable band assemblies listed below shipping to South Staffs for further processing. This QA inspector has previously reviewed copies of the completed partial documentation packages for the cable bands shipping to South Staffs. The documents contained the following:

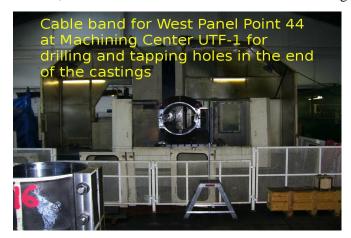
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- -Material Test Reports
- -Nondestructive test reports
- -Dimension verification reports
- -Certificate of compliance from Goodwin Steel Foundry

The material appeared to be in conformance with contract documents with exceptions noted below.

- a) West Panel Point 76. RFI-2281: Dimensional Deviation: B4 Type 1 Female ID 8 Panel Point 76 West Bound
- b) West Panel Point 70. Dimensional Deviation: B4 Type 1 Female/Male ID 7 Panel Point 70 West Bound RFI2269, and RFI-2165 – dimensional deviation Drawing Number 5540-B4-1-M, Panel Point 70 West Bound.





## **Summary of Conversations:**

Relevant conversations are documented above

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Riegler,Randy	Quality Assurance Inspector
Reviewed By:	Edmondson,Fred	QA Reviewer